



National Aerospace Fasteners Corp.

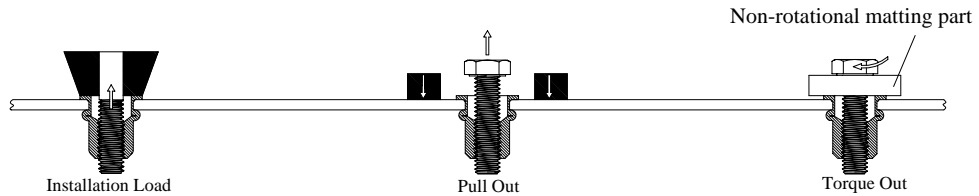


NH *SERIES*

HALF HEX SHANK

LOW PROFILE HEAD

Test Method



Engineering Data

Unified Thread

Thread Size	Installation (LBS)		Pull Out * (LBS)	Torque Out ** (Lb-In)
	Min grip	Max grip		
# 6 -32 UNC	485	990	1,010	55
# 8 -32 UNC	485	990	1,010	60
#10 -24 UNC	790	1,760	1,750	80
#10 -32 UNF	790	1,760	1,750	80
1/4 -20 UNC	970	2,040	2,720	190
1/4 -28 UNF	970	2,040	2,720	190
5/16-18 UNC	1,145	2,310	3,955	395
5/16-24 UNF	1,145	2,310	3,955	395
3/8 -16 UNC	1,145	2,310	3,955	510
3/8 -24 UNC	1,145	2,310	3,955	510
1/2 -13 UNC	3,040	6,060	6,070	790

Metric Thread

Thread Size	Installation (KN)		Pull Out * (KN)	Torque Out ** (N-m)
	Min grip	Max grip		
M4X0.7	2.2	4.4	4.5	6.8
M5X0.8	3.5	7.8	7.8	9.2
M6X1.0	4.3	9.1	12.1	22.0
M8X1.25	5.1	10.3	17.6	45.0
M10X1.5	5.1	10.3	17.6	58.0
M12X1.75	13.6	27.0	27.0	90.0

* **Pull Out** is the force required to pull the NAFCO product from the parent material.

** **Torque Out** is the maximum recommended torque to be applied to the bolt (class 8.8/9.8), which will not cause thread distortion in the insert.

*** These values are averages only- certain variations must be expected in actual application. NAFCO recommends that these values be used only as a guide.

Fastener Specifications

Material: Steel 1008,1010, or Equiv. Per SAE J403f

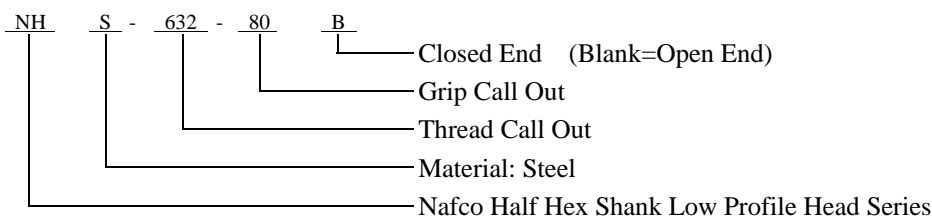
Finish: Zinc Plated, Yellow Chromate

Per ASTM B633 Fe/Zn 8 Type

(Special Material and Plating also Available on Request)

Part Number Explanation

Example: NHS-632-80B

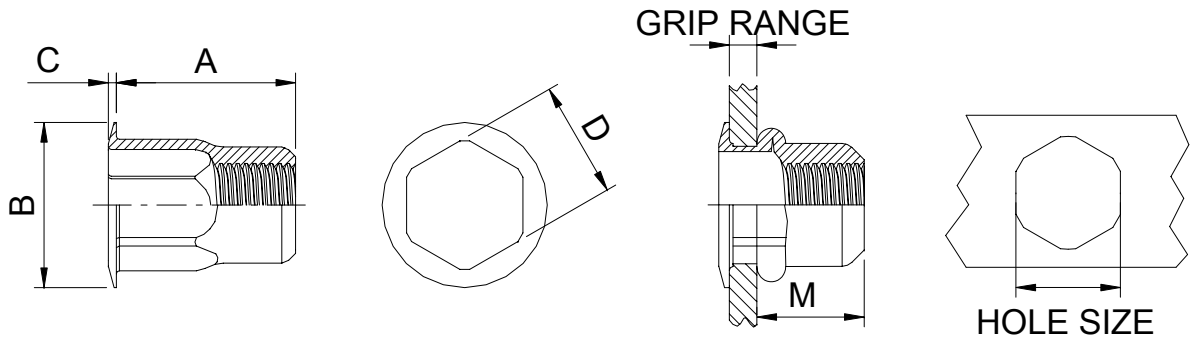


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ISO9001 TEL: 886-3-4508868 FAX: 886-3-4604183 <http://www.nafco.com.tw> e-mail: sales@ms1.nafco.com.tw

NH

HALF HEX SHANK LOW PROFILE HEAD SERIES



UNIFIED THREAD

Unit: Inch

THREAD SIZE	PART NUMBER	GRIP RANGE		A	B		C	D	M	HOLE SIZE
		Min.	Max.	± .015	Min.	Max.	± .003	Max.	Ref.	+0.004/-0.000
# 6 -32 UNC	NHS-632-80	.020	.080	.385	.365	.385	.027	.249	.295	.250
# 6 -32 UNC	NHS-632-130	.080	.130	.435	.365	.385	.027	.249	.295	.250
# 8 -32 UNC	NHS-832-80	.020	.080	.385	.365	.385	.027	.249	.295	.250
# 8 -32 UNC	NHS-832-130	.080	.130	.435	.365	.385	.027	.249	.295	.250
#10 -24 UNC	NHS-1024-130	.020	.130	.435	.380	.400	.027	.280	.275	.281
#10 -24 UNC	NHS-1024-225	.130	.225	.535	.380	.400	.027	.280	.275	.281
#10 -32 UNF	NHS-1032-130	.020	.130	.435	.380	.400	.027	.280	.275	.281
#10 -32 UNF	NHS-1032-225	.130	.225	.535	.380	.400	.027	.280	.275	.281
1/4 -20 UNC	NHS-420-165	.027	.165	.585	.500	.520	.030	.374	.400	.375
1/4 -20 UNC	NHS-420-260	.165	.260	.685	.500	.520	.030	.374	.400	.375
1/4 -28 UNF	NHS-428-165	.027	.165	.585	.500	.520	.030	.374	.400	.375
1/4 -28 UNF	NHS-428-260	.165	.260	.685	.500	.520	.030	.374	.400	.375
5/16-18 UNC	NHS-518-150	.027	.150	.685	.630	.680	.035	.499	.530	.500
5/16-18 UNC	NHS-518-312	.150	.312	.845	.630	.680	.035	.499	.515	.500
5/16-24 UNF	NHS-524-150	.027	.150	.685	.630	.680	.035	.499	.530	.500
5/16-24 UNF	NHS-524-312	.150	.312	.845	.630	.680	.035	.499	.515	.500
3/8 -16 UNC	NHS-616-150	.027	.150	.685	.630	.680	.035	.499	.530	.500
3/8 -16 UNC	NHS-616-312	.150	.312	.845	.630	.680	.035	.499	.515	.500
3/8 -24 UNF	NHS-624-150	.027	.150	.685	.630	.680	.035	.499	.530	.500
3/8 -24 UNF	NHS-624-312	.150	.312	.845	.630	.680	.035	.499	.515	.500
1/2 -13 UNC	NHS-813-200	.063	.200	1.156	.850	.880	.050	.685	.852	.688
1/2 -13 UNC	NHS-813-350	.200	.350	1.300	.850	.880	.050	.685	.829	.688

METRIC THREAD

Unit: mm

THREAD SIZE	PART NUMBER	GRIP RANGE		A	B		C	D	M	HOLE SIZE
		Min.	Max.	± 0.38	Min.	Max.	± 0.08	Max.	Ref.	+0.10/-0.00
M4X0.7	NHS-470-2.0	0.50	2.00	9.78	9.28	9.78	0.68	6.35	7.49	6.40
M4X0.7	NHS-470-3.3	2.00	3.30	11.05	9.28	9.78	0.68	6.35	7.49	6.40
M5X0.8	NHS-580-3.3	0.50	3.30	11.05	9.66	10.16	0.68	7.10	6.99	7.15
M5X0.8	NHS-580-5.7	3.30	5.70	13.59	9.66	10.16	0.68	7.10	6.99	7.15
M6X1.0	NHS-610-4.2	0.70	4.20	14.86	12.71	13.21	0.76	9.50	10.16	9.55
M6X1.0	NHS-610-6.6	4.20	6.60	17.40	12.71	13.21	0.76	9.50	10.16	9.55
M8X1.25	NHS-8125-3.8	0.70	3.80	17.40	16.00	17.28	0.89	12.70	13.46	12.75
M8X1.25	NHS-8125-7.9	3.80	7.90	21.46	16.00	17.28	0.89	12.70	13.08	12.75
M10X1.5	NHS-1015-3.8	0.70	3.80	17.40	16.00	17.28	0.89	12.70	13.46	12.75
M10X1.5	NHS-1015-7.9	3.80	7.90	21.46	16.00	17.28	0.89	12.70	13.08	12.75
M12X1.75	NHS-12175-4.5	1.60	5.00	29.36	21.33	22.61	1.27	17.45	21.64	17.47
M12X1.75	NHS-12175-8.9	5.00	8.90	33.02	21.33	22.61	1.27	17.45	21.06	17.47

*Actual grip range can be affected by parent material and hole size, contact NAFCO for details.

**Other sizes, threads and grip ranges are available on request.

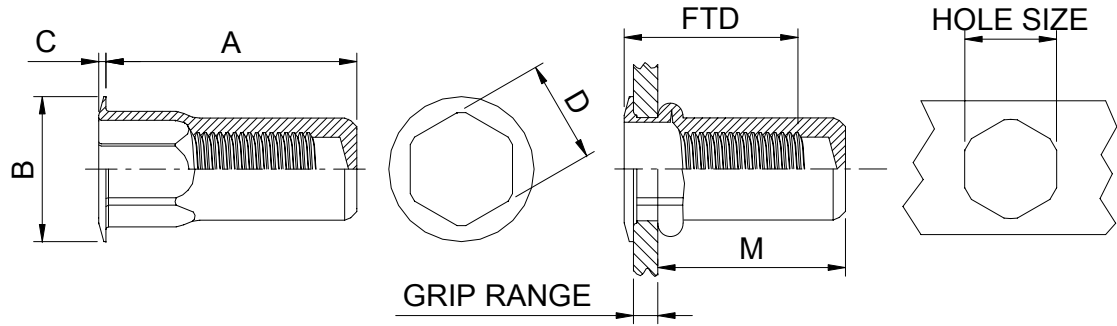


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NH-B

CLOSED END HALF HEX SHANK LOW PROFILE HEAD SERIES



UNIFIED THREAD

Unit: Inch

THREAD SIZE	PART NUMBER	GRIP RANGE		A ± .015	B		C ± .003	D Max.	M Ref.	FTD Max.	HOLE SIZE +0.004/-0.000
		Min.	Max.		Min.	Max.					
# 6 -32 UNC	NHS-632-80B	.020	.080	.740	.365	.385	.027	.249	.640	.575	.250
# 6 -32 UNC	NHS-632-130B	.080	.130	.740	.365	.385	.027	.249	.580	.640	.250
# 8 -32 UNC	NHS-832-80B	.020	.080	.740	.365	.385	.027	.249	.640	.575	.250
# 8 -32 UNC	NHS-832-130B	.080	.130	.740	.365	.385	.027	.249	.580	.640	.250
#10 -24 UNC	NHS-1024-130B	.020	.130	1.03	.380	.400	.027	.280	.845	.695	.281
#10 -24 UNC	NHS-1024-225B	.130	.225	1.03	.380	.400	.027	.280	.735	.805	.281
#10 -32 UNF	NHS-1032-130B	.020	.130	1.03	.380	.400	.027	.280	.845	.695	.281
#10 -32 UNF	NHS-1032-225B	.130	.225	1.03	.380	.400	.027	.280	.735	.805	.281
1/4 -20 UNC	NHS-420-165B	.027	.165	1.190	.500	.520	.030	.374	1.015	.945	.375
1/4 -20 UNC	NHS-420-260B	.165	.260	1.190	.500	.520	.030	.374	.915	1.085	.375
1/4 -28 UNF	NHS-428-165B	.027	.165	1.190	.500	.520	.030	.374	1.015	.945	.375
1/4 -28 UNF	NHS-428-260B	.165	.260	1.190	.500	.520	.030	.374	.915	1.085	.375
5/16-18 UNC	NHS-518-150B	.027	.150	1.445	.630	.680	.035	.499	1.235	1.045	.500
5/16-18 UNC	NHS-518-312B	.150	.312	1.445	.630	.680	.035	.499	1.220	1.170	.500
5/16-24 UNF	NHS-524-150B	.027	.150	1.445	.630	.680	.035	.499	1.235	1.045	.500
5/16-24 UNF	NHS-524-312B	.150	.312	1.445	.630	.680	.035	.499	1.220	1.170	.500
3/8 -16 UNC	NHS-616-150B	.027	.150	1.445	.630	.680	.035	.499	1.235	1.045	.500
3/8 -16 UNC	NHS-616-312B	.150	.312	1.445	.630	.680	.035	.499	1.220	1.170	.500
3/8 -24 UNF	NHS-624-150B	.027	.150	1.445	.630	.680	.035	.499	1.235	1.045	.500
3/8 -24 UNF	NHS-624-312B	.150	.312	1.445	.630	.680	.035	.499	1.220	1.170	.500

METRIC THREAD

Unit: mm

THREAD SIZE	PART NUMBER	GRIP RANGE		A ± 0.38	B		C ± 0.08	D Max.	M Ref.	FTD Max.	HOLE SIZE +0.10/-0.00
		Min.	Max.		Min.	Max.					
M4X0.7	NHS-470-2.0B	0.50	2.00	18.80	9.28	9.78	0.68	6.35	16.26	14.61	6.40
M4X0.7	NHS-470-3.3B	2.00	3.30	18.80	9.28	9.78	0.68	6.35	14.73	16.26	6.40
M5X0.8	NHS-580-3.3B	0.50	3.30	26.16	9.66	10.16	0.68	7.10	21.46	17.65	7.15
M5X0.8	NHS-580-5.7B	3.30	5.70	26.16	9.66	10.16	0.68	7.10	18.67	20.45	7.15
M6X1.0	NHS-610-4.2B	0.70	4.20	30.23	12.71	13.21	0.76	9.50	25.78	24.00	9.55
M6X1.0	NHS-610-6.6B	4.20	6.60	30.23	12.71	13.21	0.76	9.50	23.24	27.56	9.55
M8X1.25	NHS-8125-3.8B	0.70	3.80	36.70	16.00	17.28	0.89	12.70	31.37	26.54	12.75
M8X1.25	NHS-8125-7.9B	3.80	7.90	36.70	16.00	17.28	0.89	12.70	30.99	29.72	12.75
M10X1.5	NHS-1015-3.8B	0.70	3.80	36.70	16.00	17.28	0.89	12.70	31.37	26.54	12.75
M10X1.5	NHS-1015-7.9B	3.80	7.90	36.70	16.00	17.28	0.89	12.70	30.99	29.72	12.75

*Actual grip range can be affected by parent material and hole size, contact NAFCO for details.

**Other sizes, threads and grip ranges are available on request.

***FTD to express full thread



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